

## ABSTRACT

Methods and apparatus compress data, comprising an In-phase (I) component and a Quadrature (Q) component. The compressed data may be saved into a memory or may be transmitted to a remote location for subsequent processing or storage. Statistical characteristics of the data are utilized to convert the data into a form that requires a reduced number of bits in accordance with the statistical characteristics. The data may be further compressed by transforming the data, as with a discrete cosine transform, and by modifying the transformed data in accordance with a quantization conversion table that is selected using a data type associated with the data. Additionally, a degree of redundancy may be removed from the processed data with an encoder. Subsequent processing of the compressed data may decompress the compressed data in order to approximate the original data by reversing the process for compressing the data with corresponding inverse operations.